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Woodward-Clyde Consultants

November 8, 1990
88C2076-4S

U.S. Environmental
Protection Agency
Region III
841 Chestnut Street
Philadelphia, PA 19107

Attn: Mr. Randy Sturgeon

Delaware Dept. of Natural Resources
and Environmental Control
Div. of Air and Waste Management
715 Grantham Lane
New Castle, DE 19720

Attn: Mr. Karl Kalbacher

Re: Du Pont-Newport Site
Newport, Delaware
Groundwater Seepage
Sampling and MW-33B(R)

Gentlemen:

On behalf of Du Pont, Woodward-Clyde Consultants (WCC) is providing follow-up to the August 23, 1990 meeting with EPA and DNREC. As indicated at the meeting, Du Pont has volunteered to evaluate the groundwater seepage along the northern riverbank at the Newport Site. This letter is also responsive to the EPA's August 9, 1990 letter to Du Pont.

An investigation of the visually observable conditions along the embankment has already been completed by WCC. A summary of the observations and the locations of groundwater seepage are provided on the attached Table 1 and Figure 1, respectively.

Collection of groundwater samples from the seepage points is scheduled to start November 12, 1990. Utilizing the groundwater seepage station labeling shown on Figure 1, the analytical parameters proposed for each sample (individual seepage point or composite from several seepage points for non-volatile organics analyses) are shown on Table 2.

This letter also serves to confirm the approval already provided verbally, by the EPA and DNREC addressees, shown above, for the replacement of Phase III well MW-33B with MW-33B(R), due to

a non-recoverable submersible pump being lodged in MW-33B by the drilling subcontractor. The MW-33B well has been abandoned in accordance with Delaware regulations.

Du Pont and WCC welcome any input from the EPA or DNREC prior to the scheduled sampling event. Approval from both agencies is respectfully requested. For your convenience, a countersignature approval line is provided below. Thank you for your prompt response.

Very truly yours,

WOODWARD-CLYDE CONSULTANTS

for Roger T. Gresh, P.G.
Project Manager

RTG/kcs/DPN

cc: J. Karmazyn - Du Pont
R. DeStefano - Du Pont
C. Trmal - Du Pont
A. Hirsch - WCC

DU PONT-NEWPORT SITE
APPROVAL FOR GROUNDWATER SEEPAGE SAMPLING PROGRAM

APPROVED BY:

_____ _____

Randy Sturgeon
USEPA, Region III

Date

_____ _____

Karl Kalbacher
Delaware DNREC

Date

AR306423

TABLE 1

GROUNDWATER SEEPAGE STATIONS
DU PONT-NEWPORT

Station	Seepage Flow Rate	Sediment Staining; Leachate Description	Vegetation Observations Other Comments
GWS-1	Poor	Rust color stain; slight sheen	Vegetation - reed canary grass; pickerelweed in low intertidal
GWS-2	Moderate	Clear	Vegetation - jewelweed, iris; pickerelweed
GWS-3	Fair	Clear; slight sheen nearby	Several feet below high water in bricks/ rubble; large area of diffuse flow. Vegetation - honeysuckle; Polygonum sp.
GWS-4	Moderate		50 feet east of GWS-3 maybe part of GWS-3. Vegetation - pickerelweed; Polygonum sp.
GWS-5	Poor	Sheen	Diffuse flow; difficult to collect sample.
GWS-6	Poor	Clear	002 outfall; flowing from pipe day of inspection; flow from bank poor; perform metals only from pipe?
GWS-7	Fair-Poor	Slight sheen	Diffuse flow Vegetation - pickerelweed; Polygonum sp.
GWS-8	Good	Clear	003 outfall; located 20 - 25 feet upstream of piling ruins; observed frog. Vegetation - willows

TABLE 1
(continued)

Station	Seepage Flow Rate	Sediment Staining; Leachate Description	Vegetation Observations Other Comments
GWS-9	Good	Bright orange stain; strong organic odor	No vegetation observed; 50 feet downstream from intakes at east end of old head wall
GWS-10	Poor	Amber floating NAPL	Middle of intertidal; no vegetation below; sampling may be difficult
GWS-11	Fair	Rust color; strong iridescent sheen	Sandy sediment; location corresponds with unidentified discharge pipe; large area of rust color stain; no vegetation; all rubble and cobbles.
GWS-12	Fair	Rust color stain; "Dowtherm"-like odor	Gravelly sediment; raccoon tracks observed; vegetation minimal - one clump of pickerelweed.
GWS-13	Fair	Rust color stain	Diffuse area of rust colored stain; will choose specific sampling location in field vegetation - pickerelweed in mid-intertidal.
GWS-14	Fair	Yellow, blue, and green stained mud; slight iridescence	Vegetation - pickerelweed; *Polygonum* sp.
GWS-15	Fair	White and orange stains	No vegetation
GWS-16	Moderate	Rust colored stain; clear flow; iridescent film; organic odor	

TABLE 1
(continued)

Station	Seepage Flow Rate	Sediment Staining; Leachate Description	Vegetation Observations Other Comments
GWS-17	Moderate	Sinking NAPL "Dowtherm"-like odor	Vegetation - pickerelweed
GWS-18	Poor	Diffuse area of sheen	No vegetation observed
GWS-19	Moderate	Yellow, orange and green separate stains with white precipitate; organic odor.	Located near unpermitted discharge; no vegetation observed.
GWS-20	Fair-Poor	Orange, yellow, and white stains; slightly iridescent film; petroleum hydrocarbon odor.	Diffuse flow; 20 to 25 feet upstream of concrete wall.

DPN

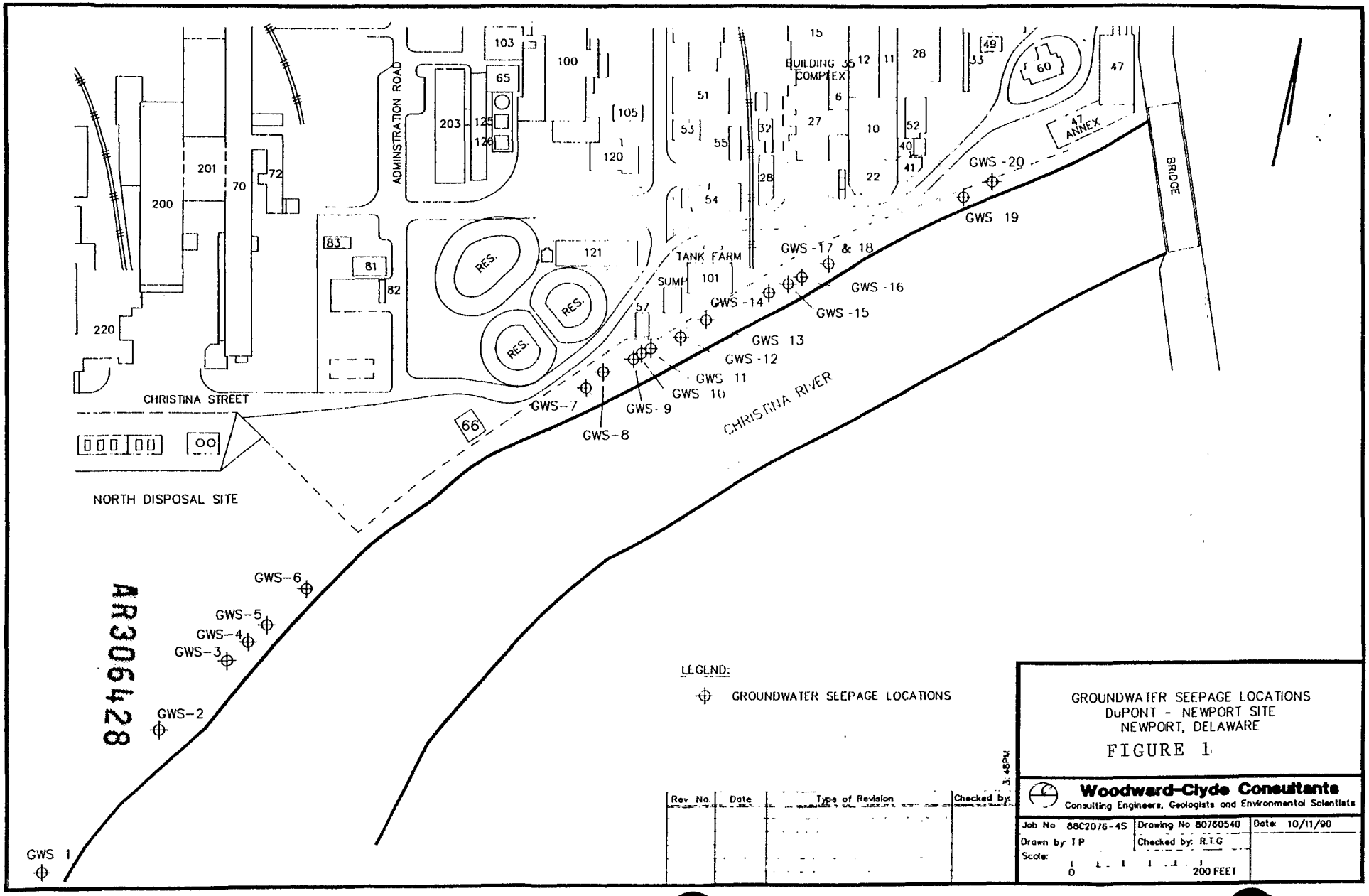
TABLE 2

Groundwater Seepage Station	Proposed Analytical Parameters[1]
GWS-1	No sample
GWS-2, 3, 4, 5, 6 (Composite)	SVOA[2]; metals[2]
GWS-2	VOA[2]
GWS-4	VOA
GWS-7, 8 (Composite)	SVOA; Metals
GWS-8	VOA
GWS-9, 10, 11 (Composite)	SVOA; Metals
GWS-9	VOA
GWS-11	VOA
GWS-12, 13 (Composite)	SVOA; Metals
GWS-12	VOA
GWS-14, 15, 16 (Composite)	SVOA; Metals
GWS-14	VOA
GWS-16	VOA
GWS-17, 18 (Composite)	SVOA; Metals
GWS-17	VOA
GWS-19, 20 (Composite)	SVOA; Metals
GWS-19	VOA
GWS-20	VOA; TPH

(1) Proposed analyses will be subject to field limitations on availability of groundwater seepage for appropriate sampling.

(2) SVOA = Target Compound List Semi-Volatile Organics
VOA = Target Compound List Volatile Organics
Metals = Target Analyte List Metals
TPH = Total Petroleum Hydrocarbons

DPN


ADMINSTRATION ROAD
BUILDING 35 COMPLEX
47 ANNEX
BRIDGE
TANK FARM
SUMP
RES.
RES.
RES.
CHRISTINA STREET
NORTH DISPOSAL SITE
CHRISTINA RIVER
GWS 1
GWS-2
GWS-3
GWS-4
GWS-5
GWS-6
GWS-7
GWS-8
GWS- 9
GWS- 10
GWS 11
GWS-12
GWS 13
GWS-14
GWS-15
GWS-16
GWS-17 & 18
GWS 19
GWS-20
LEGLND:
GROUNDWATER SEEPAGE LOCATIONS
AR306428
GROUNDWATER SEEPAGE LOCATIONS
DuPONT - NEWPORT SITE
NEWPORT, DELAWARE
FIGURE 1
Woodward-Clyde Consultants
Consulting Engineers, Geologists and Environmental Scientists
Job No 88C2076-4S
Drawing No 80760540
Date: 10/11/90
Drawn by TP
Checked by: R.T.G
Scale:
0
200 FEET
Rev. No.
Date
Type of Revision
Checked by: